

EXHIBIT 4

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

WESTERNGECO L.L.C.,

Plaintiff,

V.

ION GEOPHYSICAL CORPORATION,

Defendant.

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CIVIL ACTION NO. 4:09-cv-01827

JURY TRIAL DEMANDED

**DEFENDANT ION GEOPHYSICAL CORPORATION'S RESPONSE
TO WESTERNGECO'S SECOND SET OF INTERROGATORIES (NOS. 12 – 21)**

TO: Plaintiff WesternGeco L.L.C., by and through its attorneys of record, Lee L. Kaplan, SMYSER KAPLAN & VESELKA, L.L.P., 700 Louisiana, Suite 2300, Houston, Texas 77002; Timothy K. Gilman, KIRKLAND & ELLIS L.L.P., 601 Lexington Avenue, New York, New York 10022-4675; and John M. Desmarais, P.C., Desmarais, LLP, 320 Park Avenue, New York, New York, 10169.

Pursuant to Federal Rule of Civil Procedure 33, Defendant ION Geophysical Corporation (“Defendant” and/or “ION Geophysical”) hereby submits its Response to Plaintiff WesternGeco’s (“Plaintiff”) Second Set of Interrogatories (Nos. 12 – 21) as follows:

GENERAL OBJECTIONS

ION Geophysical makes the following general objections to each instruction, definition, and interrogatory:

1. ION Geophysical objects to Plaintiff’s definitions, instructions, and interrogatories to the extent they request the discovery or disclosure of information that is immune from discovery, protected by the attorney-client privilege or work-product doctrine, constitutes trial preparation materials prepared in anticipation of litigation by or for ION Geophysical or by or for any representatives of ION Geophysical, including its attorney(s),

ION Geophysical objects to this Interrogatory, because properly construed, this Interrogatory contains at least five discrete subparts covering willful infringement allegations for each of WesternGeco's five Patents-in-Suit and thus is properly construed as five separate Interrogatories. This renders WesternGeco's Interrogatories excessive in number under both LR33.1 and Fed. R. Civ. P. 33(a)(1), and thus objectionable. ION Geophysical further objects to this Interrogatory to the extent it presumes that ION Geophysical infringes WesternGeco's Patents-in-Suit. ION Geophysical further objects to the extent this Interrogatory calls for ION Geophysical to marshal its evidence.

Subject to its objections, any alleged infringement could not be willful as ION Geophysical has and had a good faith belief that it did not infringe WesternGeco's Patents-in-Suit as ION Geophysical does not manufacture, sell, offer for sale, or use any products that infringe on WesternGeco's Patents-in-Suit. Additionally, ION Geophysical and WesternGeco had previously discussed WesternGeco's potential desire to use the DigiFIN in WesternGeco's Q-Marine system. Furthermore, ION Geophysical has and had a good faith belief that the asserted claims of the WesternGeco Patents-in-Suit are invalid or unenforceable and therefore incapable of being infringed.

INTERROGATORY NO. 18

State all factual and legal bases for any ION contention that acceptable non-infringing alternatives exist for WesternGeco's Patents-In-Suit, including but not limited to the identity of the alleged alternative, its technical capabilities, any comparison between the alleged alternative and any ION Accused Product, details of the alleged alternative's commercial availability, and the alleged alternative's date of first availability.

RESPONSE:

ION Geophysical objects to this Interrogatory as it calls for ION Geophysical to disclose prematurely expert opinions as such disclosure is premature under the Court's Scheduling Order and the parties' agreement. ION will supplement its response in conjunction with its disclosure of expert opinions as contemplated by the Court's Scheduling Order and the parties' agreement.

INTERROGATORY NO. 19

State all factual and legal bases for ION's contention that WesternGeco has committed an antitrust violation, including but not limited to ION's contention that "one or more individuals associated with the filing and prosecution of the application that led to the issuance of the '038 patent including the alleged inventor and the inventor's attorney, deliberately and intentionally committed fraud before the PTO in the procurement of the '038 Patent." (D.I. 6 at ¶ 121).

RESPONSE:

ION Geophysical objects to this Interrogatory, because properly construed, it contains at least two distinct subparts as ION Geophysical has asserted two separate antitrust claims against WesternGeco: one based on WesternGeco's fraudulent assertion of the Bittleston Patents, and one based on WesternGeco's fraudulent assertion of the Zajac Patent.

Subject to ION Geophysical's objections, WesternGeco has committed an antitrust violation by asserting the Bittleston Patents to restrict the market for marine seismic surveys performed using laterally steerable streamers and the 4D marine seismic surveys submarket, despite knowing that the Bittleston Patents were procured by WesternGeco perpetrating a fraud on the PTO by knowing, willful, and intentional acts, misrepresentations, and/or omissions before the PTO including intentionally withholding known prior art and co-inventors from its disclosures to the PTO. WesternGeco has asserted a further antitrust violation by asserting the Zajac Patent to restrict the market for marine seismic surveys performed using laterally steerable streamers and the 4D marine seismic surveys submarket, despite knowing that the Zajac Patent was procured by WesternGeco perpetrating a fraud on the PTO by knowing, willful, and intentional acts, misrepresentations, and/or omissions before the PTO including making materially false misrepresentations about certain prior art that was assigned to WesternGeco and that gave rise to the Bittleston Patents. Despite having a duty of candor in front of the PTO, WesternGeco intentionally mischaracterized the breadth of the teachings in the application that gave rise to the Bittleston Patents, specifically denying that the Bittleston Patents taught control of both the vertical and lateral position of marine seismic streamers.

INTERROGATORY NO. 20

State all factual and legal bases for any ION contention that WesternGeco is not entitled to injunctive relief for ION's infringement of WesternGeco's Patents-In-Suit.

RESPONSE:

ION Geophysical objects to this Interrogatory, because properly construed, this Interrogatory contains at least five discrete subparts covering willful infringement allegations for each of WesternGeco's five Patents-in-Suit and thus is properly construed as five separate Interrogatories. This renders WesternGeco's Interrogatories excessive in number under both LR33.1 and Fed. R. Civ. P. 33(a)(1), and thus objectionable. ION Geophysical further objects to this Interrogatory to the extent it presumes that ION Geophysical infringes WesternGeco's Patents-in-Suit.

Subject to its objections, ION Geophysical responds that WesternGeco's inequitable conduct before the PTO, as well as its inequitable conduct in asserting the WesternGeco Patents-in-Suit, bars WesternGeco from seeking the equitable remedy of injunctive relief. Additionally, injunctive relief is barred by WesternGeco's unclean hands, waiver, and the doctrine of laches. Furthermore, injunctive relief is barred because ION Geophysical does not infringe any claims of the WesternGeco Patents-in-Suit, WesternGeco's Patents-in-Suit are unenforceable due to WesternGeco's inequitable conduct, and the asserted claims of WesternGeco's Patents-in-Suit are invalid.

INTERROGATORY NO. 21

Describe in detail ION's allegation that it has been damaged by WesternGeco's alleged infringement of the ION Patent-In-Suit, including the type and amount of each element of damages that ION intends to seek against WesternGeco and an explanation of the basis for and

Dated: June 4, 2010.

Respectfully submitted,

/s/ David Burgert

David Burgert

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**ATTORNEYS FOR DEFENDANT
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 4th day of June, 2010, the foregoing was served on the following counsel for WesternGeco by e-mail, facsimile, and/or by certified mail, return receipt requested:

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/s/ Ray T. Torgerson
Ray T. Torgerson

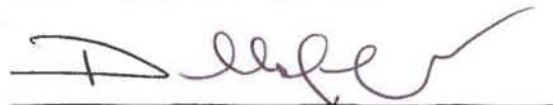
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THE STATE OF LOUISIANA §

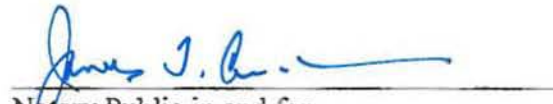
PARISH OF JEFFERSON §

BEFORE ME, the undersigned authority, on this day personally appeared DAVID MOFFAT, Senior Vice President of the Marine Division of ION Geophysical Corporation, who, on his oath did state that he has reviewed the attached interrogatory answers, and to the best of his information and belief, the factual information contained therein is the information available to ION Geophysical Corporation, and is true and correct.

ION Geophysical Corporation



David Moffat
Senior Vice President, General Manager and
Managing Director



Notary Public in and for
The State of Louisiana

Printed Name of Notary: James T. Cronvich

My Commission Expires: at death

